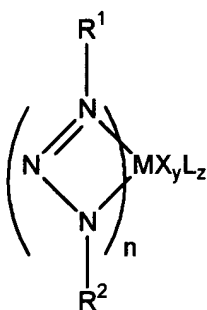


AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Original) A polymerisation catalyst comprising
- (1) a nitrogen-containing transition metal compound having the following Formula A, and



Formula A

(2) an activating quantity of an activator compound selected from organoaluminium compounds and hydrocarbylboron compounds, wherein in, Formula A, either (a) R¹ and R² are monovalent groups connected to the terminal nitrogen atoms of the triazene unit via carbon in said monovalent groups or (b) R¹ and R² integrally form a divalent group R³ bridging the terminal nitrogen atoms of the triazene unit via carbon atoms;

the monovalent groups R¹ and R² and the divalent group R³ are independently selected from (i) aliphatic hydrocarbon, (ii) alicyclic hydrocarbon, (iii) aromatic hydrocarbon, (iv) alkyl substituted aromatic hydrocarbon (v) heterocyclic groups and (vi) heterosubstituted derivatives of said groups (i) to (v);

M is a metal from Group 3 to 11 of the Periodic Table or a lanthanide metal; X is an anionic group, L is a neutral donor group; n is 1 or 2, y and z are independently zero

or integers such that the number of X and L groups satisfy the valency and oxidation state of the metal M.

2. (Original) A polymerisation catalyst as claimed in Claim 1 wherein the monovalent groups R^1 and R^2 are selected from methyl, ethyl, ethylenyl, isopropyl, tert-butyl, adamantyl, cyclopentyl, cyclohexyl, phenyl, biphenyl, naphthyl, phenanthryl, anthryl, benzyl, tolyl, mesityl, 2,6-diisopropylphenyl and 2,4,6-triisopropyl, 2-pyridinyl, 3-pyridinyl, 2-thiophenyl, 2-furanyl, 2-pyrrolyl and 2-quinolinyl.

3. (Original) A polymerisation catalyst as claimed in Claim 1 wherein the divalent group R^3 is formed by formal removal of a hydrogen atom from a group selected from methyl, ethyl, ethylenyl, isopropyl, tert-butyl, adamantyl, cyclopentyl, cyclohexyl, phenyl, biphenyl, naphthyl, phenanthryl, anthryl, benzyl, tolyl, mesityl, 2,6-diisopropylphenyl and 2,4,6-triisopropyl, 2-pyridinyl, 3-pyridinyl, 2-thiophenyl, 2-furanyl, 2-pyrrolyl and 2-quinolinyl.

4. (Currently amended) A polymerisation catalyst as claimed in ~~any one of the preceding Claims~~ Claim 1 wherein R^1 , R^2 and R^3 are heterosubstituted derivatives of said groups (i), (ii), (iii), (iv) or (v) and wherein the hetero-substituent is selected from chloro, bromo, fluoro, iodo, nitro, amino, cyano, ether, hydroxyl and silyl, methoxy, ethoxy, phenoxy (i.e. $-\text{OC}_6\text{H}_5$), tolyloxy, xylyloxy, mesityloxy, dimethylamino, diethylamino, methylethylamino, thiomethyl, thiophenyl and trimethylsilyl.

5. (Currently amended) A polymerisation catalyst as claimed in ~~any one of the preceding Claims~~ Claim 1 wherein the group R^1 , R^2 or R^3 is heterocyclic and the atom or atoms present in the rings as the heteroatom are selected from oxygen, nitrogen, sulphur, phosphorus and silicon.

6. (Original) A polymerisation catalyst as claimed in any one of Claims 1, 2, 4 or 5 wherein R¹ and R² are separate, identical groups.
7. (Original) A polymerisation catalyst as claimed in Claim 6 wherein R¹ and R² are alkyl groups.
8. (Currently amended) A polymerisation catalyst as claimed in ~~any one of the preceding Claims~~ Claim 1 wherein M is selected from Sc, Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W, Mn, Fe, Ru, Co, Rh, Ir, Ni, Pd and Pt.
9. (Currently amended) A polymerisation catalyst as claimed in ~~any one of the preceding Claims~~ Claim 1 wherein the anionic group X is selected from halide, hydrocarbyl, carboxylate, oxide, amide, and alkoxide.
10. (Currently amended) A polymerisation catalyst as claimed in ~~any one of Claims~~ Claim 1 ~~[[to 8]]~~ wherein X is a non-coordinating or weakly-coordinating anion.
11. (Original) A polymerisation catalyst as claimed in Claim 10 wherein X is selected from tetrafluoroborate, fluorinated aryl borate and triflate.
12. (Currently amended) A polymerisation catalyst as claimed in ~~any one of the preceding Claims~~ Claim 1 wherein the activator compound (2) is an organoaluminium ~~compounds~~ compound selected from trimethylaluminium, triethylaluminium, tributylaluminium, tri-n-octylaluminium, ethylaluminium dichloride, diethylaluminium chloride and an alumoxane, or a hydrocarbylboron ~~compounds~~ compound selected from dimethylphenylammoniumtetra(phenyl)borate, trityltetra(phenyl)borate, triphenylboron, dimethylphenylammonium tetra(pentafluorophenyl)borate, sodium tetrakis[(bis-3,5-trifluoromethyl)phenyl]borate, H⁺(OEt₂)[(bis-3,5-trifluoromethyl)phenyl]borate, trityltetra(pentafluorophenyl)borate and tris(pentafluorophenyl) boron.

13. (Currently amended) A polymerisation catalyst as claimed in ~~any one of the preceding Claims~~ Claim 1 wherein the catalyst is supported on a support material.

14. (Original) A polymerisation catalyst as claimed in Claim 13 wherein the support material is selected from silica, alumina, zirconia, magnesia or a polymer or prepolymer.

15. (Currently amended) A polymerisation catalyst as claimed in ~~any one of the preceding Claims~~ Claim 1 wherein the nitrogen-containing transition metal compound having the following Formula A is selected from

1,3-bis(2,6-diisopropylphenyl)triazenido zirconium dichloride,

1,3-bis(2,6-diisopropylphenyl)triazenido titanium dichloride,

1,3-bis(adamantyl)triazenido titanium dichloride,

1,3-bis(adamantyl)triazenido zirconium dichloride,

Bis(1,3-diphenyltriazene)zirconium dichloride.THF,

1,3-Bis(2,4,6-trimethylphenyl)triazenido zirconium dibenzyl,

Bis-N,N-(2,6-diisopropylphenyl)triazenylphenyltriphenylphosphine nickel(II) and

Bis(1,3-diphenyltriazene)zirconium dichloride.THF.

16. (Currently amended) A catalyst as claimed in ~~any one of the preceding Claims~~ Claim 1 and further comprising

a catalyst selected from Ziegler-Natta catalyst, metallocene-based catalyst and heat-activated supported chromium oxide catalyst.

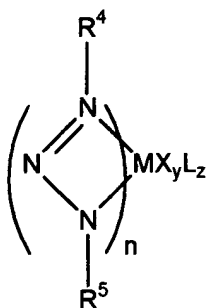
17. (Currently amended) A process for the polymerisation and copolymerisation of 1-olefins comprising contacting the monomeric 1-olefin under

polymerisation conditions with the polymerisation catalyst claimed in ~~any one of the preceding Claims~~ Claim 1.

18. (Original) A process as claimed in Claim 17 wherein a monomer selected from ethylene, propylene, butene, hexene, and styrene is homopolymerised.

19. (Original) A process as claimed in Claim 17 wherein ethylene and or propylene are copolymerised with a comonomer selected from 1-olefin, acrylic acid ester, vinyl ester and vinyl aromatic compound.

20. (Original) A transition metal compound having the Formula C



Formula C

wherein either (a) R^4 and R^5 are monovalent groups connected to the terminal nitrogen atoms of the triazene unit of Formula C via carbon in said monovalent groups or (b) R^4 and R^5 integrally form a divalent group R^6 bridging the terminal nitrogen atoms of the triazene unit of Formula A via carbon atoms;

the monovalent groups R^4 and R^5 and the divalent group R^6 are independently selected from (i) aliphatic hydrocarbon, (ii) alicyclic hydrocarbon, (iii) alkyl substituted aromatic hydrocarbon (iv) heterocyclic groups and (v) heterosubstituted derivatives of said groups (i) to (iv);

M is a metal from Group 3 to 11 of the Periodic Table or a lanthanide metal; X is an anionic group; L is a neutral donor group; n is 1 or 2; y and z are independently

integers such that the number of X and L groups satisfy the valency and oxidation state of the metal M.

21. (Original) Propylene homopolymer or propylene copolymer having a weight average molecular weight in the range 0.7×10^6 to 2.0×10^7 .

22. (Original) Propylene homopolymer or propylene copolymer having a weight average molecular weight in the range 1×10^6 to 1.6×10^7 .

23. (Original) Propylene homopolymer or propylene copolymer having a weight average molecular weight in the range 2×10^6 to 1.20×10^7 .

24. (Original) A propylene copolymer as claimed in any one of Claims 21 to 23 comprising 0.01 to 20 weight % based on the total weight of copolymer of one or more olefins selected from ethylene and C_4 to C_{12} 1-olefins.

25. (Cancelled).